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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/990,133	11/21/2001	Petri Boman	915-400	2111

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EXAMINER

PHAM, TUAN

ART UNIT	PAPER NUMBER
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2643

DATE MAILED: 05/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/990,133

Applicant(s)

BOMAN ET AL.

Examiner

TUAN A. PHAM

Art Unit

2643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see Applicant's remark, filed on 12/20/04, with respect to the rejection(s) of claim(s) 1-27 under 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Firooz (US Patent No.: 6,035,035).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 22-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Firooz (US Patent No.: 6,035,035).

Regarding claim 22, Firooz teaches a method of forming a housing (see figures 1 and 2) comprising a unitary tubular body (i.e., bracelet shaped) having an open end for insertion of electronic components therein (see figures 1 and 2, open end at first portion 2a and 2b, insert LCD 7 at open end of first portion 2a, col.3, ln.16-22, col.3, ln.1-10), the method including the step of permanently attaching at least two housing portions together to form the unitary body (see figures 1 and 2, when the first portion 2a and second portion 2b are closed it will be form a bracelet shaped).

Regarding claim 23, Firooz further teaches a method wherein the portions are attached by welding. Firooz fails to explicitly teach the first and second portion of housing is attached by welding. However, Firooz teaches a housing of radiotelephone with the first portion and second portion together by a hinges. Therefore, hinges attach the first and second portions of housing or welding is inherently.

Regarding claim 24, Firooz further teaches a method wherein the portions are attached by adhesive bonding. Firooz fails to explicitly teach the first and second portion of housing is attached by adhesive bonding. However, Firooz teaches a housing of radiotelephone with the first portion and second portion together by a hinges. Therefore, the first and second portions of housing is attached by hinges or adhesive is inherently.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. **Claims 1-5, 10-21, and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Firooz (US Patent No.: 6,035,035) in view of Kubo (U.S. Patent No.: 6,580,923).**

Regarding claims 1 and 25, Firooz teaches a method of forming a housing (see figures 1 and 2) comprising a unitary tubular body (i.e., bracelet shaped) having an open end for insertion of electronic components therein (see figures 1 and 2, open end at first portion 2a and 2b, insert LCD 7 at open end of first portion 2a, col.3, ln.16-22, col.3, ln.1-10), the method including the step of permanently attaching at least two

housing portions together to form the unitary body (see figures 1 and 2, when the first portion 2a and second portion 2b are closed it will be form a bracelet shaped).

It should be noticed that Firooz fails to teach the body includes a plurality of apertures in one face to receive the keys of a keymat mounted on an inner wall of the body, and an opening in the other face opposite the apertures to receive a battery pack. However, Kubo teaches such features (see figure 3, front case 32 has plurality of apertures, back case 34, battery pack mounting portion 45, col.4, ln.45-58, col.5, ln.1-25).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Kubo, into view of Firooz in order to save the space of the mobile phone.

Regarding claim 2, Firooz further teaches a housing including a member for closing the open end of the tubular body (see figure 2, latch 4, col.3, ln.24-30).

Regarding claim 3, Kubo further teaches a housing wherein the member is configured to support electronic components thereon (see figure 3, it is obvious the housing portion 32 should be included a member to support the LCD within the housing).

Regarding claim 4, Kubo further teaches a housing wherein the member includes a support for locating and retaining a printed circuit board thereon (see figure 3, it is obvious the housing portion 32 should be included a member to support the PCB 36 within the housing).

Regarding claim 5, Kubo further teaches a housing wherein the support includes an integrally moulded clip to receive the edge of a printed circuit board and a

location spigot to support the underside thereof (see figure 3, it is obvious the housing portion 32 should be included a moulded clip to support the PCB 36 within the housing).

Regarding claim 10, Kubo further teaches a housing wherein the body includes means to releasably secure a keymat retaining plate over the keymat (see figure 3, key group sheet 31, col.4, ln.46-55).

Regarding claim 11, Kubo further teaches a housing wherein the means comprises an integrally formed tab on the body for location of the retaining plate there under (see figure 3, key group sheet 31, col.4, ln.46-55).

Regarding claim 12, Kubo further teaches a housing wherein the retaining plate (i.e., flexible printed circuit board) is formed from a resilient flexible material and is a snap fit beneath the integrally formed tab on the body (see figure 3, col.7, ln.62-67).

Regarding claim 13, Kubo further teaches a housing wherein a portion of the body overlaps the member, the body and member including co-operating parts (i.e., handle) to mount the member on the body (see figure 4, handle 52c-3, col.6, ln.30-52).

Regarding claim 14, Kubo further teaches a housing wherein the co-operating parts includes a flange on the member that forms an interference fit with the body (see figure 6, 52b-2, col.6, ln.19-27).

Regarding claim 15, Firooz further teaches a housing a lock for releasable securing the member mounted to the body (see figure 2, latch 4, col.3, ln.24-30).

Regarding claim 16, Firooz further teaches a housing wherein said lock includes an aperture in the member and a boss in the body, fastening means being

insertable through the aperture for location in the boss (see figure 2, latch 4, col.3, ln.24-30).

Regarding claims 17 and 18, Kubo further teaches an electronic device incorporating the housing and mobile telecommunication device (see figure 3).

Regarding claim 19, Kubo further teaches a housing including a key mat, a key mat retaining plate and a battery pack, the retaining plate being configured such that the key mat is biased against the housing by the retaining plate when the battery pack is mounted in the housing (see figure 3, col.4, ln.46-67).

Regarding claim 20, Kubo further teaches a housing wherein the retaining plate includes resiliently deformable regions raised out of the plane of the plate, said regions being deflected back towards the plane of the plate by the battery pack mounted in the housing, thereby biasing the key mat against the housing (see figure 6, col.6, ln.1-26).

Regarding claim 21, Kubo further teaches a housing wherein the resiliently deformable regions are a plurality of spaced parallel ribs (see figure 3, col.6, ln.1-27).

Regarding claim 26, Firooz further teaches a method wherein the housing is extruded (see col.1, plate 9 and 10, col.3, ln.16-30).

Regarding claim 27, Kubo further teaches a method wherein the housing is formed from sheet metal. It is obvious the housing can be used with any material.

6. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Firooz (US Patent No.: 6,035,035) in view of Kubo (U.S. Patent No.: 6,580,923) as applied to claim 1 above, and further in view of Norman et al. (U.S. Patent No.: 6,073,027, hereinafter, "Norman").

Regarding claim 6, Firooz and Kubo, in combination, fails to teach a housing wherein a portion of the inner peripheral wall of the member includes a recess to receive a transducer module. However, Norman teaches such features (see col.3, ln.27-46).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Norman, into view of Firooz and Kubo in order to save the space of the mobile phone.

Regarding claim 7, Norman further teaches a housing including a guide on the body to receive and support electronic components mounted on the member (see figure 4, guide 38, col.3, ln.56-64).

Regarding claim 8, Norman further teaches a housing wherein the guide is a rail (i.e., guide)(see figure 4, guide 38, col.3, ln.56-64).

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Tuan A. Pham** whose telephone number is (571) 272-8097. The examiner can normally be reached on Monday through Friday, 8:00 AM-5:00 PM.

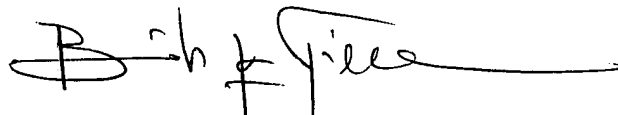
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Curtis Kuntz can be reached on (571) 272-7499 and

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Art Unit 2643
May 1, 2005
Examiner

Tuan Pham

A handwritten signature in black ink, appearing to read 'Binh Tieu', with a long horizontal flourish extending to the right.

**BINH TIEU
PRIMARY EXAMINER**